# Project Design Phase-II
## Technology Stack (Architecture & Stack)

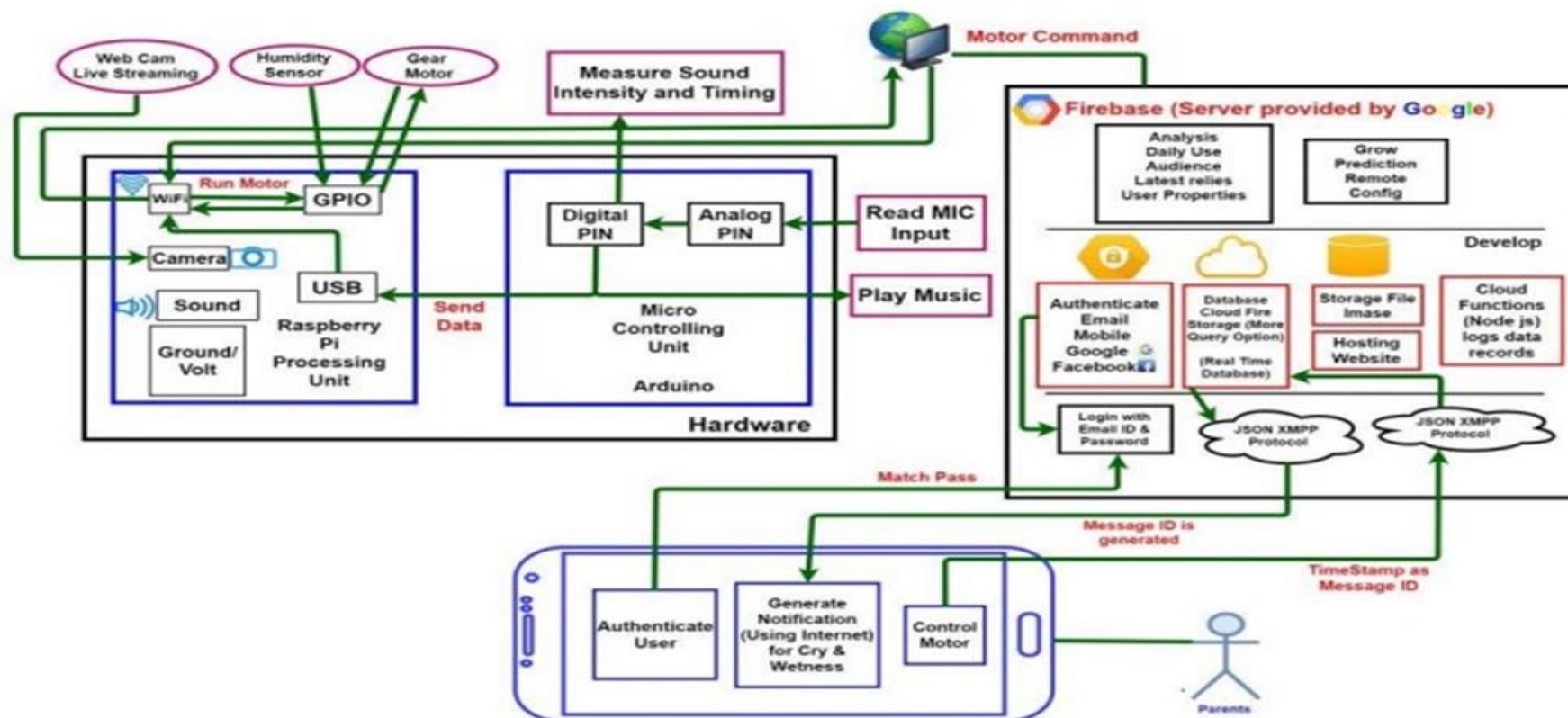| Date | 03 October 2022 |
|---|---|
| Team ID | PNT2022TMID38800 |
| Project Name | IoT Based Safety Gadget for Child Safety Monitoring & Notification |
| Maximum Marks | 4 Marks |

**Technical Architecture:**

**Table-1: Components & Technologies:**

| S.No | Component | Description | Technology |
|------|-----------|-------------|------------|
| 1. | User Interface | Web UI, Mobile App. | HTML, CSS, JavaScript. |
| 2. | Application Logic-1 | Code development phase | Python |
| 3. | Application Logic-2 | Interfacing purpose | IBM Watson |
| 4. | Cloud Database | Database Service on Cloud | IBM Cloudant |
| 5. | File Storage | Usage of IBM Cloud Storage | IBM Block Storage |
| 6. | Browser based flow editor | Visual programming | Node Red |
| 7. | Infrastructure (Server / Cloud) | Application Deployment on Local System | Cloud Platform |

**Table-2: Application Characteristics:**

| S.No | Characteristics | Description | Technology |
|------|-----------------|-------------|------------|
| 1. | Open-Source Frameworks | A template for software development that is designed by social network | IBM Watson Platform, Node Red |
| 2. | Security Implementations | Each and every parent should take care of their own children, without letting them fall into the dark world of abuse, which entirely ruins them physically, mentally and emotionally destroying our future. Hence, considering the importance of our future, our project makes it easy for parents to track their children and to visually monitor them on regular basis, which makes them ensure the safety of their children and reduces. | Notifications and alerts |
| 3. | Scalable Architecture | The rate of incidents of child abuse. If any abnormal values are read by the sensor, then an SMS is sent to the parents mobile and an MMS indicating an image captured by the serial camera is also sent. The future scope of the work is to implement the IoT device which ensures the complete solution for child safety problems. | Implementation using Software |

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| 4. | Scalable Architecture | The rate of incidents of child abuse. If any abnormal values are read by the sensor, then an SMS is sent to the parents mobile and an MMS indicating an image captured by the serial camera is also sent. The future scope of the work is to implement the IoT device which ensures the complete solution for child safety problems. | Implementation using Software |
| 5. | Performance | GPS is useful for tracking children and GPS also provides the information where the child is currently located as well as it also informs the parents how long his child is far away from his parents. SMS services used when smart phones do not support internet connectivity in this case a child is able to send a text message or exact location to the parents. This system is going to help the parents to track the location of their children without informing them because their movement is displayed on the parent's phone. | GPS |